

ProtoDUNE

measurements group

Notes and path forward
in broad strokes

History

1. Group was initially set up ~2 years ago to perform studies needed for proposal
 - Explored what could be done, performed with available manpower and within given time frame
 2. Group was re-activated/revived to help write measurement section for protoDUNE TDR
 - List of possible studies was refined (CERN workshop); some activity to advance particular topics
- Challenges: severe manpower limitation

Moving forward

- Have entered new era:
 - Need to prepare to produce results as soon as possible after protoDUNE data taking starts
 - Move from exploring possible studies/measurements to specifics with given constraints and challenges (manpower, time, potential data/detector performance limitations, ...)

Need well focused effort

- To demonstrate to ourselves and world that LAr, and specifically protoDUNE can produce more than “just pretty pictures”
 - identify 1 ,2 or possibly 3 high priority and reasonably achievable studies under realistic conditions
 - Pool resources and carefully coordinate to achieve this more limited set of goals
 - Need discussion/agreement what these studies should be

Anticipate changes to structure of measurement group

First: Many thanks to Jarek and Donna for coordinating measurement group effort for 2 years in its present form

New format (in broad strokes and still under discussion)

- Analysis leader for each of the ~2 analyses
- Oversight to be provided by small analysis steering group with representatives from
 - ProtoDUNE leadership
 - Calibration group
 - Software/tools group
 - Analysis leaders
 - Maybe external advisors
- Make sure all tools and data preparations are ready, schedules can be met, manpower allocations, etc. (e.g. support logistics of analysis effort)

Parallel goal

- Report on detector performance soon after detector is commissioned
- requires input and active engagement from detector component groups to provide input feedback into analysis tasks
 - At interface of hardware and software; keep somewhat separate from analysis so as not to distract but still have coordinate effort for relevant input

Todo

- Identify key topics
- Set up new group structure and communication channels/meetings
- Incorporate your input
- ...